

ABSTRACT OF THE DISCLOSURE

Techniques for managing leased network addresses for multiple networks using overlapping address spaces include storing banks of addresses corresponding to the multiple networks. A request for a network address for a host on a first network is received from a relay agent on an intermediate device. The request includes a qualifier associated with the first network by the relay agent. A first bank of addresses is selected based on the qualifier. A first network address from the first bank is identified based at least in part on the request. A response for the host is sent to the relay agent. The response indicates the first network address and the qualifier. Thus a dynamic host configuration protocol (DHCP) server can provide the same network address for several hosts spread over different networks, such as different virtual private networks (VPNs).